

IN THE CLAIMS

17. (Currently Amended) A pneumatic tire having a tread, a belt structure, a pair of sidewalls, a pair of bead regions, one or more plies anchored in each bead region, the pair of bead regions each including an inextensible annular bead core and an elastomeric element disposed adjacent to each bead core, ~~characterized by~~ wherein:

the elastomeric element is disposed axially outwardly from the bead core relative to the equatorial plane of the tire; and

the carcass ply having a pair of turnup ends within the bead regions that extend radially ~~outward~~ inward from the carcass ply and under the bead cores relative to the equatorial plane of the tire, the turnup ends continue under an and are turned up wrapping around the elastomeric elements, wrapping around the elastomeric elements with the locked end sections of the carcass ply located radially inward of the bead cores and anchored between the bead cores and the carcass plies;

the bead core is in a side-by-side relationship with the elastomeric element; and

the tire has a locked bead type of construction, a distinguishing characteristic of which is that there is no filler or apex disposed between a main portion and a turned up portion of the carcass ply.

18. (Previously Presented) The tire of claim 17 characterized in that the elastomeric elements are made of pre-cured rubber.

19. (Previously Presented) The tire of claim 18 characterized in that the elastomeric elements are reinforced by fibers of materials including glass, Aramid, steel or polyester.

20. (Currently Amended) A method of forming a tire on a tire building drum, characterized by the steps of:

placing a carcass ply on the drum;

placing a pair of elastomeric toruses over the carcass ply for their incorporation in bead regions of the tire;

folding turnup ends of the carcass ply back over the elastomeric toruses so that anchored end sections are disposed against the turnup ends;

placing bead cores inward of and adjacent to the enfolded elastomeric toruses relative to the center of the building drum;

expanding the center section of the building drum to secure the bead cores in place; and
inflating the carcass to form the tire;

wherein:

the bead cores are in a side-by-side relationship with the elastomeric elements; and
the tire has a locked bead type of construction, a distinguishing characteristic of which is that
there is no filler or apex disposed between a main portion and a turned up portion of the carcass ply.

21. (Currently Amended) The process of claim 20 including the step of providing the tire building drum with grooves to receive the elastomeric toruses.

22. (Previously Presented) The process of claim 20 where the center section of the building drum is expanded before the addition of chafer and other tire components on the drum.

23. (Currently Amended) A pneumatic tire comprising:

an axis and an equatorial plane;

a tread region, two bead regions, and two sidewalls;

a reinforcing ply and two bead cores;

wherein:

each sidewall extends generally radially between a respective one of the bead regions and the tread region;

each bead core is disposed in a respective one of the bead regions;

the reinforcing ply extends from one bead core, through a corresponding one of the sidewalls, through the tread region, through the other sidewall, to the other bead core;

the reinforcing ply has two turnup ends at opposite ends thereof, and the turnup ends wrap at least partially around a respective one of the bead cores;

further comprising two elastomeric elements;

wherein:

each elastomeric element is disposed in a respective one of the bead regions adjacent a respective one of the bead cores;

characterized in that:

the elastomeric element is disposed axially ~~inward~~ outward of the respective bead core;

wherein:

the bead core is in a side-by-side relationship with the elastomeric element; and
the tire has a locked bead type of construction, a distinguishing characteristic of which is that
there is no filler or apex disposed between a main portion and a turned up portion of the carcass ply.

24. (Previously Presented) The tire of claim 23, wherein:

the elastomeric elements are in the form of toruses, and each has a circular cross section.

25. (Currently Amended) The tire of claim 23, wherein:

the elastomeric elements are in the form of toruses, and each has a cross-section selected from the group consisting of square, oblong, triangular, and octagonal.

26. (Previously Presented) The tire of claim 23 characterized in that:

the elastomeric elements are made of pre-cured rubber.

27. (Previously Presented) The tire of claim 23 characterized in that:

the elastomeric elements are reinforced by fibers of materials including glass, Aramid, steel or polyester.

28. (Previously Presented) The tire of claim 23, wherein:

each turnup end extends radially downwardly past the axially inward side of a respective one of the bead cores.

29. (Previously Presented) The tire of claim 28, wherein:

each turnup end extends axially outwardly under the bead core, then under a respective one elastomeric elements.

30. (Previously Presented) The tire of claim 29, wherein:

each turnup end wraps radially upward around the axially outward side of the elastomeric element.

31. (Previously Presented) The tire of claim 30, wherein:
each turnup end extends axially inwardly over the elastomeric element and radially
downwardly by the axially inward side of the elastomeric element.

32. (Previously Presented) The tire of claim 31, wherein:
each turnup end extends axially inwardly under the bead core, between the bead and itself.

Please add the following claim

33. (New) The tire of claim 17, wherein:
the elastomeric elements are in the form of toruses, and each has a circular cross section. —